

LISTING OF THE CLAIMS

This listing of claims is the current listing of claims currently pending in the application:

Listing of Claims:

1. (Currently Amended) A method for synchronizing a wakeup schedule for a first communications module and a wakeup schedule for a second communications module in a wireless mobile unit, ~~said~~ the method comprising:

computing a next wakeup time for the first communication module, the computing ~~act~~ is based at least in part on a time period set by the wireless mobile unit;
computing a next wakeup time for the second communication module; and
synchronizing a new wakeup time for the second communication module to the next wakeup time for the first communication module ~~when said~~ if the next wakeup time for the first communication module is earlier than the next wakeup time for the second communication module.

2. (Currently Amended) A method for synchronizing a wakeup schedule for an Ultra-Wideband (UWB) module and a wakeup schedule for a communications module in a wireless mobile unit, ~~said~~ the method comprising:

calculating a next communications wakeup time based at least in part on a time period set by the wireless mobile unit;
calculating a next UWB wakeup time; and
synchronizing a new UWB wakeup time to ~~said~~ the next communications wakeup time ~~when said~~ if the next communications wakeup time is earlier than the next UWB wakeup time.

3. (Cancelled)

4. (Original) The method of claim 2 further comprising:
determining a current communications time; and
determining a current UWB time.
5. (Currently Amended) The method of claim 4 further comprising ~~a step of~~
determining a communications interval, ~~said the~~ said the communications interval equaling ~~said~~
the next communications wakeup time less ~~said the~~ said the current communications time.
6. (Currently Amended) The method of claim 5 further comprising ~~a step of~~
synchronizing ~~said the~~ said the new UWB wakeup time to ~~said the~~ said the next communications wakeup
time ~~when said if the~~ when said if the current UWB time plus ~~said the~~ said the communications interval is less
than ~~said the~~ said the next UWB time.
7. (Currently Amended) The method of claim 2 further comprising ~~a step of~~
performing a UWB wakeup process and a communications wakeup process substantially
at ~~said the~~ said the new UWB wakeup time.
8. (Currently Amended) The method of claim 7 wherein ~~said the~~ said the performing
~~step~~ step comprises ~~a step of~~ a step of powering on ~~said the~~ said the UWB module and ~~said the~~ said the communications
module substantially simultaneously so as to reduce ~~said the~~ said the wireless mobile unit's power
consumption.

9. (Currently Amended) A method for synchronizing a wakeup schedule for an Ultra-Wideband (UWB) module and a wakeup schedule for a communications module in a wireless mobile unit, ~~said the~~ method comprising:

determining a current communications time from a received pilot signal transmitted by a base station;

determining a current UWB time from an internal clock in the UWB module;

calculating a communications interval, ~~said the~~ communications interval equaling a next communications wakeup time less ~~said the~~ current communications time; and

synchronizing a new UWB wakeup time to ~~said the~~ next communications wakeup time ~~when said if the~~ current UWB time plus ~~said the~~ communications interval is less than a next UWB wakeup time.

10. (Currently Amended) The method of claim 9 further comprising ~~steps of~~:
establishing ~~said the~~ next communications wakeup time prior to ~~said step of the~~
calculating ~~said the~~ communications ~~time~~ interval; and

establishing ~~said the~~ next UWB wakeup time prior to ~~said step of the~~
synchronizing ~~said the~~ new UWB wakeup time.

11. (Currently Amended) The method of claim 9 further comprising ~~a step of~~
performing a UWB wakeup process and a communications wakeup process substantially
at ~~said the~~ new UWB wakeup time.

12. (Currently Amended) The method of claim 11 wherein ~~said the~~
performing ~~step~~ comprises ~~a step of~~ powering on ~~said the~~ UWB module and ~~said the~~
communications module substantially simultaneously ~~so as to reduce said wireless~~
~~mobile unit's power consumption.~~

13. (Currently Amended) The method of claim 9 wherein ~~said the~~ wireless
mobile unit comprises a UWB-enabled communications mobile phone.

14. (Currently Amended) A wireless mobile unit comprising:
a communications module configured to perform a communications wakeup process at a next communications wakeup time, wherein ~~said the~~ the wakeup time is computed based at least in part on a set time period and the communications module is further configured to receive a pilot signal and to derive a current communications time from ~~said the~~ the pilot signal;
an Ultra-Wideband (UWB) module configured to perform a UWB wakeup process, wherein the UWB module comprises a clock, ~~said the~~ the clock being configured to track a current UWB time; and
a processor configured to synchronize a new UWB wakeup time to ~~said the~~ the next communications wakeup time ~~when said if the~~ the next communications wakeup time is earlier than a next UWB wakeup time.

15. (Cancelled)

16. (Currently Amended) The wireless mobile unit of claim 14 wherein ~~said the~~ the UWB module is configured to perform ~~said the~~ the UWB wakeup process at ~~said the~~ the new UWB wakeup time ~~when said if the~~ the next communications wakeup time is earlier than ~~said the~~ the next UWB wakeup time.

17-19. (Cancelled)

20. (Currently Amended) The wireless mobile unit of claim 14 wherein ~~said the~~ the processor is further configured to calculate a communications interval, ~~said the~~ the communications interval equaling ~~said the~~ the next communications wakeup time less ~~said the~~ the current communications time.

21. (Currently Amended) The wireless mobile unit of claim 20 wherein ~~said the~~ the processor is further configured to synchronize ~~said the~~ the new UWB wakeup time to ~~said the~~ the next communications wakeup time ~~when said if the~~ the current UWB time plus ~~said the~~ the communications interval is less than ~~said the~~ the next UWB wakeup time.

22. (Currently Amended) The wireless mobile unit of claim 14 wherein ~~said~~ the communications module performs ~~said~~ the communications wakeup process and ~~said~~ the UWB module performs ~~said~~ the UWB wakeup process substantially at ~~said~~ the new UWB wakeup time.

23. (Currently Amended) The wireless mobile unit of claim 22 wherein ~~said~~ the communications module and ~~said~~ the UWB module are configured to power on substantially simultaneously ~~so as to reduce said wireless mobile unit's power consumption.~~

24. (Currently Amended) The wireless mobile unit of claim 14 wherein ~~said~~ the wireless mobile unit is a UWB-enabled communications mobile phone.

25. (Currently Amended) A wireless unit comprising:
means for storing data;
means for performing a communications wakeup process at a next communications wakeup time;
means for computing the next communications wakeup time; and
means for synchronizing a new Ultra-Wideband (UWB) wakeup time to ~~said~~ the next communications wakeup time ~~when said~~ if the next communications wakeup time is earlier than a next UWB wakeup time.

26. (Cancelled)

27. (Currently Amended) A digital signals processing apparatus, comprising:
a memory means for storing digital data; and
a digital signal processing means for interpreting digital signals to synchronize a wakeup schedule for an Ultra-Wideband (UWB) module and a wakeup schedule for a communications module in a wireless mobile unit by:
computing a next communications wakeup time based at least in part on a set time period; and
synchronizing a new UWB wakeup time to ~~said~~ the next communications wakeup time ~~when said~~ if the next communications wakeup time is earlier than a next UWB wakeup time.

28. (Currently Amended) The apparatus of claim 27, ~~said~~ the digital signal processing means further interpreting digital signals to establish ~~said~~ the next UWB wakeup time after ~~said~~ the computing ~~a next communications wakeup time based at least in part on a set time period,~~ and before ~~said~~ the synchronizing ~~a new UWB wakeup time.~~